



**UNITED STATES DEPARTMENT OF COM**  
**National Oceanic and Atmospheric Adm.**  
NATIONAL MARINE FISHERIES SERVICE  
Southwest Region  
300 South Ferry Street  
Terminal Island, California 90731

February 14, 1991

MEMORANDUM FOR: JOE CLEM  
FROM: SVEIN FOUGNER *Svein*  
SUBJECT: SOCIAL IMPACT ANALYSIS

I have read Peter Fricke's comments on Amendment 4 to the Bottomfish FMP and am chagrined. I admit that I oversimplified in the assessment of social impacts and will strive to do a better job on the final regulations.

However, the comments also raise a question in my mind, specifically, where to draw the line between economic impacts and social impacts? If a vessel operator were forced to drop a crew member in order to carry an observer, which are the social impacts to note and which are economic impacts? Or is there overlap so that if covered in one category, an impact need not be re-covered in another category?

In any event, I have been alerted and will be more conscious of the need for discussion in the future.

CC:  
F/CM1 - Peter Fricke  
F/SWR11 - A. Katekaru





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, Maryland 20910

FEB 13 1991

MEMORANDUM FOR: F/CM2 - Joe P. Clem  
FROM: F/CM1 - Peter H. Fräcke  
SUBJECT: Review of Amendment 4 to the FMP for Bottomfish  
and Seamount Groundfish of the Western Pacific

As requested, I have reviewed the above amendment for the adequacy of the social impact assessment.

The amendment argues that the costs to be borne by the vessels will be restricted to the cost of telephone notification of the Region prior to a fishing trip. The cost of providing accommodations for observers is not addressed in the amendment, although individual spaces are required in the regulations with provision to be made for protecting the privacy of female observers.

If a vessel must reduce crew size by one in order to accommodate an observer, what are the costs and benefits to the vessel and to the crew of this action? What will be the economic and social costs to the displaced crew member? If a vessel does not have appropriate accommodations, as required by the draft regulations, will it be selected as an observer platform?

The amendment states that "The immediate social impact of the proposed action will be to demonstrate that the Council and the NMFS are concerned about the well-being of protected species and the bottomfish fishery in the NWHI." I have considerable problems with this statement. The immediate and primary social impact will be upon crews of vessels carrying observers; work patterns will be affected, crew size may be affected if an observer displaces a crewman, and the social system of the vessel will be affected. None of these social impacts - which may be beneficial, other than for displaced crewmen - are described in the amendment.

The secondary social impacts, i.e. perceptions of benefits by others not directly affected by the action, are described in the amendment. Since the fishermen are cooperating with the Council and NMFS in identifying and dealing with this problem the social impact section should be amended to show this, e.g. "An immediate social impact of the proposed action will be to demonstrate that the fishermen, Council, and the NMFS ..." (changes underlined).

cc: F/CM-RSchafer, DCrestin; F/CM1-HBlatt, RSurdi; F/CM2-JFlanders





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, Maryland 20910

FEB 12 1991

MEMORANDUM FOR: Distribution\*

FROM: *JPClem*  
Joe P. Clem  
Chief, Plans and Regulations Division

SUBJECT: Review of Amendment 4 to the Fishery  
Management Plan for Bottomfish and Seamount  
Groundfish Fisheries

Attached is a copy of Amendment 4 to the Fishery Management Plan for the Bottomfish and Seamount Groundfish Fisheries of the Western Pacific Region. The Western Pacific Fishery Management Council has submitted this amendment for Secretarial review.

Amendment 4 would implement requirements imposed by current emergency regulations that ensure adequate collection of data on interactions between the bottomfish fishery and protected species of marine animals in the Northwestern Hawaiian Islands.

Please provide your comments by April 2, 1991, and direct inquiries to Joanna Flanders at (301) 427-2343.

Attachment

\*Distribution

F/CM	-	Schaefer, Crestin, Hochman	N/ORM4	-	Brody
F/CM1	-	Blatt, Fricke	CS/ES	-	Cottingham
F/CM2	-	Clem, Leedy, Miller	OGC	-	Malone
F/CM3	-	Parsons	GC	-	Campbell, Johnson
GCF	-	Hayes	OMB	-	Minsk
GCEL	-	Kraniotis	SBA	-	Hankins
F/EN	-	Palloszi	F/PR2	-	Karnella
F/MB1	-	Ross-Dickens	F/PR3	-	Gallagher
FTS2	-	Fox (Norman)	F/RE1	-	Holliday
F/IA1	-	Swanson	F/RE3	-	Meehan



**Amendment 4  
and Environmental Assessment**

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**Fishery Management Plan for the Bottomfish  
and Seamount Groundfish Fisheries of the Western Pacific Region**

**January 1991**

**Western Pacific Regional Fishery Management Council  
1164 Bishop Street, #1405  
Honolulu, Hawaii 96813  
Telephone: (808) 523-1368  
FAX: (808) 526-0824**

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## 1.0 PREFACE

### 1.1 Responsible Agencies

The Western Pacific Regional Fishery Management Council (Council) was established by the Magnuson Fishery Conservation and Management Act (MFCMA) to develop fishery management plans for fisheries in the U.S. Exclusive Economic Zone (EEZ) around American Samoa, Hawaii (including the Northwestern Hawaiian Islands), Guam, the Northern Mariana Islands, and other United States possessions in the Pacific<sup>1</sup>. Once a fishery management plan is approved by the Secretary of Commerce, it is implemented by federal regulations which, in turn, are enforced by the National Marine Fisheries Service (NMFS) and the U.S. Coast Guard.

For further information, contact:

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### 1.2 Public Review and Comment

The Council solicits the views and comments of commercial and recreational fishing interests, as well as other parties interested in the various fisheries. This ensures that those who might be affected by FMP management measures have an opportunity to submit ideas and suggestions for consideration and potential action by the Council. Therefore, those affected by fishery management plans are involved in the decision-making process.

FMP Amendment 4 will be distributed for comments to fishermen and other interested parties in conjunction with the review period for rules published in the Federal Register Notice. The final rules will be responsive to comments received and responses to these comments will be incorporated into the plan amendment or rules as appropriate.

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<sup>1</sup> Howland and Baker Islands, Jarvis Island, Johnston Atoll, Kingman Reef and Palmyra Island, and Wake Island.

### **1.3 List of Preparers**

This plan amendment was prepared by Council staff member, Ms Dorothy Lowman and Mr. Alvin Katekaru, National Marine Fisheries Service, Pacific Area Office with input from the Bottomfish and Seamount Groundfish Plan Monitoring Team:

Dr. David A. Somerton, Fishery Biologist (Chairperson)  
NMFS Honolulu Laboratory

Mr. Fini Aitaoto, Statistics Program Manager  
American Samoa, Department of Marine and Wildlife Resources

Dr. Terry Donaldson, Fishery Biologist  
Northern Mariana Islands Division of Fish and Wildlife

Mr. Gerry Davis, Fishery Biologist  
Guam Division of Aquatic and Wildlife Resources

Mr. Skippy Hau, Aquatic Biologist  
Hawaii Division of Aquatic Resources

Dr. Samuel Pooley, Industry Economist  
NMFS Honolulu Laboratory



## **2.0 BACKGROUND**

### **2.1 Fishery Management Plan and Amendments**

The Fishery Management Plan for Bottomfish and Seamount Groundfish Fisheries of the Western Pacific Region (FMP) became effective on August 27, 1986. It covers the geographical region encompassing the EEZ around American Samoa, Guam, and Hawaii for the bottomfish fishery and around the Hancock Seamounts northwest of the Hawaiian Islands for the seamount groundfish fishery. Although the EEZ includes waters off the Northern Mariana Islands and the U.S. island possessions, the FMP contains no management regime for these areas because of the relatively undeveloped status of the bottomfish and seamount groundfish fisheries.

The FMP was amended in 1987 to include access management as a means of controlling bottomfishing effort under the framework process in the EEZ around American Samoa and Guam, and to extend the due date for the bottomfish annual report from March to June of each year (FMP 1987). FMP Amendment 2 established a limited access program for the northwestern Hawaiian Islands (NWHI) bottomfish fishery (FMP 1988). FMP Amendment 3 defined overfishing for the fishery in compliance with National Standards 1 and 2 of the MFCMA, and described the process by which the Council will evaluate annually the status of stocks and condition in the fishery to determine if any stock is overfished relative to the overfishing definition (FMP 1990).

### **2.2 Species and Habitat**

The bottomfish complex (snapper-grouper-jack-emperor fish) consists of bottom associated species that generally occupy the same depth range and habitat, and are caught primarily by hook-and-line fishing gear. This complex includes at least 65 species of 4 families: snapper (Lutjanidae), groupers (Serranidae), jacks (Carangidae), and emperor fish (Lethrinidae). About 20 of these species are landed in substantial quantities.

The seamount groundfish complex consists principally of three species (pelagic armorheads, alfonsons, and butterfish). These species dwell at depths (150 - 300 fathoms) on the submarine slopes and summits of seamounts below the depth range and at higher latitudes than are generally inhabited by the bottomfish complex (Appendix 1).

The bottomfish and seamount groundfish species that are managed as a unit under the FMP are those which are being actively targeted by fishermen in the EEZ around American Samoa, Guam, and Hawaii. Those bottomfish and groundfish

species that are harvested incidentally to the target species are regarded as non-specified species for the purpose of the FMP.

### 2.3 Description of the Fishery

A comprehensive description and status report on the bottomfish fishery are contained in the FMP (FMP 1986) and the 1989 Bottomfish and Seamount Groundfish Annual Report (WPRFMC 1989), respectively.

FMP Amendment 4 pertains to the NWHI bottomfish fishery which is the second largest fishery managed by the Council in the western Pacific region and where endangered and threatened marine mammals and turtles are known to occur (see Appendix 2: Endangered and Threatened Species List). On January 1, 1989, a limited entry program for the NWHI was implemented which effectively established two permitted bottomfish zones: Mau Zone ( a qualifying zone) and Ho'omalulu Zone (limited access zone)<sup>2</sup>. The Ho'omalulu Zone can only be fished by vessels whose owners meet certain qualifying criteria that are specified in 50 CFR 683.25; the Mau zone may be fished by any non-Ho'omalulu Zone permittee.

During the first year of the limited entry program 20 vessels (8 Ho'omalulu and 12 Mau) were issued permits for the NWHI bottomfish fishery. Although five of the Ho'omalulu permitted vessels actually fished in the zone, only two could be regarded as full-time equivalent vessels. Likewise, only five vessels reportedly fished in the Mau Zone. In 1989 a total of 50 bottomfish trips were made to the NWHI, with each trip lasting an average of 14.8 days. The vessels landed an average of 5,016 pounds of bottomfish per trip (WPRFMC 1989).

In 1989, the annualized average gross revenue (adjusted for inflation) for NWHI bottomfish vessels was \$259,000; net revenue per vessel was minus \$7,200 (WPRFMC 1989).

### 2.4 Condition of Stocks

The bottomfish stocks appear to be in good condition where the fisheries are currently occurring in the EEZ except for the main Hawaiian Islands. In its 1989 fishery status report to the Council, the bottomfish plan monitoring team had the following conclusions (WPRFMC 1989):

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<sup>2</sup> Mau Zone is the area between 161°20' and 165° W. longitude which encompasses Necker and Nihoa Islands. The Ho'omalulu Zone is the area west of 165° W. longitude which encompasses French Frigate Shoals and the remainder of the northwestern Hawaiian Islands.

- o American Samoa -- No management action is required at this time.
- o Guam -- No management action is required at this time.
- o Main Hawaiian Islands -- Some bottomfish species (opakapaka, onaga, ehu, and ulua) are showing signs of stress (i.e., yellow light condition). The Council should evaluate and consider alternative management measures.
- o Northwestern Hawaiian Islands -- No management action is required at this time.

### 3.0 EXISTING MANAGEMENT MEASURES

FMP management measures (50 CFR Part 683 Subpart B - Western Pacific Bottomfish and Seamount Groundfish Fisheries) govern bottomfish and seamount groundfish fishing activities in the EEZ surrounding American Samoa, Guam, Hawaii, and the Hancock Seamounts. The existing measures:

- o Require owners of bottomfishing vessels to have permits to fish for bottomfish and seamount groundfish in the NWHI (Mau and Ho'omalū Zones).
- o Prohibit the use of bottomtrawls and bottomset gillnets to fish for bottomfish and seamount groundfish.
- o Prohibit the use of explosives, poisons or intoxicating substances to harvest bottomfish and seamount groundfish.
- o Establish a fishing moratorium of 6 years (1986 to 1992) for bottomfish and seamount groundfish on the Hancock Seamounts.
- o Establish a framework process for regulatory adjustments by the Council based on the annual report on the fishery by the bottomfish plan monitoring team.
- o Establish a limited access management program for the NWHI,
- o Allow scientific research in the fishery management area by a scientific research vessel.
- o Establish pre-landing notification requirements for bottomfish vessels that fish within NWHI Ho'omalū Zone.
- o Establish observer requirements for operators of bottomfish vessels intending to fish within a 50 mile protected species study zone off certain NWHI<sup>3</sup>. (Emergency rule regulation which expires, if extended, on June 3, 1991.)

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<sup>3</sup> French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef, Midway Island, and Kure Atoll.

## **4.0 BACKGROUND AND NEED FOR FMP AMENDMENT 4**

### **4.1 Issue**

In April 1990, reports were received that Hawaiian monk seals were being hooked by longline fishermen targeting broadbill swordfish off French Frigate Shoals in the NWHI. Special Agents of the NMFS interviewed the captains and crews of 28 vessels and were informed that interactions between longliners as well as bottomfish vessels and protected species, i.e., monk seals and green sea turtles, may be occurring frequently in the NWHI. The main concern with regard to the bottomfish fishery is entanglement of monk seals and turtles with fishing gears. Also, reports were received of monk seals taking bait from fishing hooks. Although there was insufficient information to take enforcement action there was enough consistency in the reports to raise concern for obtaining definitive information on this matter. The NMFS (Honolulu Laboratory, Southwest Fisheries Science Center) sent a field party to French Frigate Shoals in May 1990 to conduct a survey of the monk seals and turtles on the beaches for evidence of interaction with the fisheries. The number of dead monk seals (9) was well within the range of animals normally reported each year; however injuries ranging from gaping wounds to abrasions were observed on seven animals that could not be attributed to shark attack or to male monk seal harassment.

Based on the NMFS report, the Council, at its 69th meeting on June 20, 1990, voted to request the Secretary of Commerce to implement the following emergency actions: (1) implement a permit and logbook reporting system for the longline fishery, and (2) implement an observer program to place observers on longline and bottomfish vessels operating in a fifty-mile protected species study zone around certain islands in the NWHI. Permit requirements were already in effect for the NWHI bottomfish fishery.

On November 26, 1990, the Secretary of Commerce issued an emergency interim rule (55 FR 49050 et seq.) requiring all bottomfish vessel operators to notify NMFS if they intend to fish in the EEZ within a 50-mile study zone around the NWHI so that observers may be placed aboard their vessels. The purpose of the emergency rule is to gather accurate information on possible interactions of the bottomfish fleet with protected monk seals and turtles. This emergency action is effective for a period of 90 days and may be extended another 90 days upon request of the Council and with approval by the Secretary of Commerce.

### **4.2 Need for FMP Amendment 4**

The Council proposes to amend the FMP to make permanent the emergency observer requirements (50 CFR 683.29 Observers) when they expire under the time limits set by the MFCMA. The need to continue observer requirements for the

NWHI bottomfish fishery is well-established. The Council and NMFS must continue to rely on observer data to determine actual, or potential for, interaction between the fishery and protected species. Sole reliance on voluntary reporting by fishermen is not sufficient for resource management, protected species conservation, and law enforcement purposes.

## 5.0 PROPOSED ACTION AND IMPACTS

### 5.1 Proposed Action

The Council proposes to make permanent emergency rules (see Section 8.0 - Draft Regulations), which were implemented on November 26, 1990, requiring operators of all bottomfish vessels intending to fish within the protected species study zone in the NWHI to notify the Regional Director for possible placement of NMFS observers on board their vessels.

The amendment also allows the Director of the NMFS to change the size of the study area if he determines, based on observers' reports or other information, that the fishery is not having and is not likely to have an adverse impact on any protected species or any critical habitat designated under the Endangered Species Act. Prior to making any changes in the study area, the Regional Director shall consult with the Council and present the Council with the information and rationale to support such changes. Proposed changes in the size of the study area shall be announced through publication of a notice in the Federal Register at least thirty (30) days prior to the effective date of the change. The information used by the Regional Director to make changes in the study area shall be available for public review and comment in the thirty (30) day period prior to the effective date of any such changes.

### 5.2 Impacts

- a. **Biological Impact** -- The proposed action will have no direct impact on the stocks of bottomfish or on threatened and endangered marine species. The information obtained from the observer program (See Appendix A3: NMFS Protected Species Interaction Logsheet) will support validation and assessment of interactions, if any, and will provide a stronger basis for determining need for fishery management controls. The ultimate effect is to maintain the long-term protection of endangered and threatened marine species in the NWHI.
- b. **Economic Impact** -- The immediate and direct impact of the proposed action will be the imposition of a cost burden on bottomfish vessel owners or operators in notifying NMFS of their intent to fish within the NWHI protected species study zone. This requirement has been evaluated in detail in a Paperwork Reduction Act Clearance request submitted to the Office of Management and Budget. Briefly, it is estimated that the total cost burden to industry is \$100 - 200 per year (approximately 50 notifications). The estimated cost to NMFS for placing observers on selected bottomfish vessels is \$60,000 per year (15 observer trips). This is a minor cost compared to closing the NWHI bottomfish fishery, or a substantial portion thereof, without the benefit of definitive information on the occurrence and level of interactions with protected species. The observer

data collected under this amendment will enable the Council to maintain an economically viable fishery and at the same time ensure the protection of the special species in the NWHI.

- c. Social Impact -- The immediate social impact of the proposed action will be to demonstrate that the Council and the NMFS are concerned about the well-being of protected species and the bottomfish fishery in the NWHI. This may alleviate some public concern that the activities of bottomfish fishermen are not being monitored with respect to interactions with protected species. Fishermen, scientists, and fishery enforcement officers agree to the need for accurate data. The proposed action should result in improved data for resource management and protected species conservation such that the reasons for controls, if needed, will be understood by both the public and industry, and the basis for selected controls will be supported. This will encourage cooperation between the public and industry, and the prevention of conflicts among fishermen.

### 5.3 Alternatives to the Proposed Action and Reason for Rejection

#### 5.3.1 No Action

The Council considered and rejected the alternative of no action. This would allow the current emergency rule to expire at the end of the term specified by the NMFS. The resultant impact would be the termination of data collection effort by NMFS observers on board selected NWHI bottomfish vessels. Without new data it would be difficult, if not impossible, for the Council to evaluate and propose measures to protect both the fishermen and special species in the NWHI.

#### 5.3.2 Alternative Management Measures

The Council considered and rejected any restrictions (e.g., area closure) for the NWHI bottomfish fishery based on unsubstantiated reports of interactions with protected species. The data on fishermen actually interacting with protected species are insufficient to provide a basis for imposing stringent management measures at this time.

#### 5.3.3 Changes in Observer Requirements

The Council concluded that only minor changes from the current emergency measures were warranted. These changes would make observer coverage complete for the entire NWHI and allow the Regional Director, after consultation with the Council, flexibility in setting the offshore boundaries for the study zones. The Council considered but concluded that major changes in observer coverage, e.g. placement of



an observer on every bottomfish vessel, would not significantly contribute or be cost-effective to developing effective management controls in the future.

## **6.0 RELATIONSHIP OF THE PROPOSED ACTIONS TO OTHER APPLICABLE LAWS AND POLICIES**

This plan amendment complies with the National Standards of the MFCMA. Information and analysis in support of the proposed actions are presented in a manner intended to satisfy MFCMA requirements, as well as the requirements of other applicable laws and policies. The FMP, including the amendments, satisfied the information and procedural requirements of the National Environmental Policy Act, the Regulatory Flexibility Act, Executive Order 12291, and other laws and directives. The FMP also served as an Environmental Impact Statement. Similarly, this plan amendment is intended to serve as an Environmental Assessment. It assesses the biological, economic, and social impacts of the proposed actions, and will satisfy the requirement for a Regulatory Impact Review. A copy of the FMP and FMP Amendments 1 to 3 may be obtained from the Council.

### **6.1 National Environmental Policy Act**

This Environmental Assessment (EA) has been prepared to complement the proposed FMP Amendment 4. It should be read in context with the plan amendment. Much of this EA is a summary of information contained in the plan amendment with appropriate sections being incorporated in the EA by reference. This is intended to minimize the risk of information or conclusions being taken out of context or misunderstood due to slight variations in language or format.

The purpose of the proposed action is to continue to obtain observer-collected data on any interaction between bottomfish vessels and protected species when temporary observer measures (50 CFR 683.29) expire at the end of the emergency period. The data obtained from the observer program will enable the Council and the NMFS to determine if any additional management measures need to be implemented to ensure the survival of protected species in the NWHI.

Specifically the proposed action will require bottomfish vessel owners or operators who intend to fish within a study zone around the NWHI to notify the NMFS prior to departure from port so that the NMFS Southwest Regional Director can determine whether an observer should be placed on the vessel. The function of the observer is to document any interaction that takes place between the vessel and protected species (e.g., monk seals, turtles) during bottomfishing activities in the study zone. The size of the zone may be adjusted by the Regional Director, after consultation with the Council, if data support changes.

Obtaining accurate information on protected species interactions will enable the Council and the NMFS to develop and implement effective management and conservation measures for the protection of threatened and endangered species in the

NWHI. The direct economic impact of the proposed action upon the industry is estimated at \$100 - 200 per year; the cost to NMFS for placing observers on selected bottomfish vessels is estimated at \$60,000 per year. The social impact of the proposed action will be beneficial to the industry and the public because concern over protected species interactions in the NWHI will be substantially reduced.

#### 6.1.1 Conclusions and Determinations

- a. The proposed action is expected to support development of management measures to ensure the long-term productivity of bottomfish species stocks in the EEZ of the NWHI.
- b. The proposed action will have no impact on the habitat of NWHI bottomfish species or protected species in the EEZ.
- c. The proposed action is not expected to have any impact on public health or safety, although information obtained as a result of the plan amendment may result in better consideration of health and safety concerns in selection of fishery conservation and management measures.
- d. The proposed action will not directly affect any endangered or threatened species; however, the information obtained under this plan amendment will provide a better basis than now exists for determining if special conservation and management measures are needed to give full protection to these species.
- e. The proposed action will not result in cumulative adverse impacts that could substantially affect bottomfish or protected species. The information obtained should provide a better basis for determining management and conservation measures that will maintain the long-term productivity of these species.
- f. The proposed action is not expected to generate controversy. While there may be concerns expressed by fishermen regarding the observer notification and placement burden placed on them, all are agreed on the need for observer-collected interaction data so that any management action taken will be based on facts and not on perceptions or allegations.
- g. The proposed action will not have any effect upon floodplains or wetlands, nor upon any trails and rivers listed, or eligible for listing on the National Trails and Nationwide Inventory of Rivers.

### **6.1.2 Finding Of No Significant Impact**

Based on the information provided in this EA and the associated FMP Amendment, it is concluded that the proposed action will not have a significant impact upon the marine or human environment. An environmental impact statement therefore is not required under the National Environmental Policy Act.

### **6.2 Coastal Zone Management Act**

Section 307(c)(1) of the Federal Coastal Zone Management Act requires that all federal activities which directly affect the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable.

The State of Hawaii coastal zone management policies directly relating to the action proposed in this amendment are contained in the coastal ecosystems and economic resources categories of the Hawaii Revised Statutes, Chapter 205 A. Those policies are to improve the technical basis for natural resource management and minimize adverse environmental effects from economic uses of coastal zone resources. The Council has determined that the proposed action is consistent with these objectives.

The Council has requested and received concurrence by the State of Hawaii that the proposed action is consistent with their coastal zone management policies.

### **6.3 Paperwork Reduction Act**

The collection-of-information requirement (i.e. pre-trip observer notification by vessel operators) of the proposed action has been approved by the Office of Management and Budget, OMB Control Number 0648-0214. The public reporting burden for this collection of information is 2 minutes per observer notification.

### **6.4 Regulatory Flexibility Act and Executive Order 12291**

The proposed action will not have significant impact on a substantial number of small business entities as defined under the Regulatory Flexibility Act. At present, there are less than 15 vessels active in the NWHI bottomfish fishery (see Section 5.2b). These vessels will not be adversely affected by the proposed action which is essentially for information gathering purposes.

The economic impact of the proposed action would be substantially less than \$100 million. The ex-vessel revenue generated by fish sales from the NWHI bottomfishing fleet as a whole is about \$1 million. For this reason, the proposed action is exempt from procedures of E.O. 12291 under section 8(a)(2) of that order.

## **6.5 Endangered Species Act**

The Endangered Species Act of 1973, as amended, prohibits the taking of endangered species except under limited circumstances. The FMP was initially reviewed under Section 7 consultation of the Act resulting in a Biological Opinion rendered by NMFS. The Biological Opinion specified no allowable incidental take of Hawaiian monk seals. Existing regulations require all NWHI bottomfish fishermen to report interactions with protected species. The proposed action imposes observer requirements on the fishermen to obtain accurate and detailed information on possible interactions with protected species in the fishery. Hence, the proposed action is viewed as fully consistent and supportive of the goals and objectives of the Endangered Species Act. Formal Section 7 consultations have been initiated between the Council and the NMFS for FMP Amendment 4.

## **6.6 Marine Mammal Protection Act**

The Marine Mammal Protection Act of 1972, as amended, allows for the incidental take of marine mammals during commercial operations under certain limited circumstances. Hawaiian monk seals, being designated as a depleted species, cannot be taken. In 1989, all fisheries in Hawaii were classified as Category III under the Act which meant the fisheries were determined to have a remote likelihood or no known incidental taking of marine mammals. The proposed action is viewed as an effective means of monitoring the bottomfish fishery and assessing its potential for taking marine mammals in the NWHI.

## **6.7 Indigenous Peoples' Fishing Rights**

The culture or religious practices of native Hawaiians, Samoans, or Chamorros will not be affected by the proposed action.

## **6.8 Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Property Rights)**

The proposed action does not entail any administrative, regulatory, legislative policy or action that affects, or may affect, the use of any real or personal property.

## **6.9 Executive Order 12612 (Federalism Assessment)**

The proposed action does not contain policies with known federalism implications that warrant the preparation of a federalism assessment under Executive Order 12612.

#### 6.10 Habitat and Vessel Safety Considerations

Vessel safety and habitat considerations that were previously addressed in FMP Amendment 2 remain applicable.

## 7.0 DRAFT REGULATIONS

### PART 683 -- WESTERN PACIFIC BOTTOMFISH AND SEAMOUNT GROUND FISH FISHERIES

1. The authority citation for part 683 continues to read as follows:

Authority: 16 U.S.C. 1801 et seq.

2. In section 683.2, the following definition is added in alphabetical order to read as follows:

#### Section 683.2 Definitions.

Sexual harassment means any unwelcome sexual advance, request for sexual favors, or other verbal and physical conduct of a sexual nature which has the purpose or effect of substantially interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment.

3. In section 683.6, new paragraphs (i), (j), and (k) are added to read as follows:

#### Section 683.6 Prohibitions.

(i) Fail to notify the Regional Director of intent to fish within a protected species study zone in the Northwestern Hawaiian Islands as required under section 683.29.

(j) Refuse to carry an observer when requested to do so by the Regional Director as required under section 683.29.

(k) Forcibly assault, impede, intimidate, interfere with, influence, attempt to influence, or harass (including sexual harassment) an observer by conduct which has the purpose or effect of unreasonably interfering with the observer's work performance, or which creates an intimidating, hostile or offensive environment. In determining whether conduct constitutes harassment, the totality of the circumstances, including the nature of the conduct and the context in which it occurred, will be considered. The determination of the legality of a particular action will be made from the facts on a case-by-case basis.

(l) Study zone means a 50-nautical mile designated area around French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan, Lisianski Island, Pearl and Hermes Reef, Midway Island, and Kure in the Northwestern Hawaiian Islands.

5. In subpart B, a new section 683.29 is added to read as follows:

## Section 683.29 Observers.

(a) The Regional Director of the NMFS may change the size of the study zone if he determines that the fishery is or is not having, or is or is not likely to have an adverse impact on any protected species. Prior to making any changes to the study zone, the Regional Director shall consult with the Council providing the information and rationale to support such changes. Proposed changes in the size of the study zone shall be announced through publication in the Federal Register at least thirty (30) days prior to the effective change. The information used by the Regional Director to make changes in the study zone shall be made available for public review and comment during the thirty (30) day period prior to the effective date of the change.

(b) The owner or operator of a fishing vessel subject to this part shall notify the Pacific Area Office by telephone (808-955-8831) at least 72 hours (not including weekends and holidays) before leaving port of his or her intent to fish within a protected species study zone in the Northwestern Hawaiian Islands as established and published by notice in the Federal Register by the Regional Director. Notification shall include the name of the vessel, name of the owner or operator, intended departure and return date, and a telephone number at which the owner or operator may be contacted during the business day (8 a.m. to 5 p.m.) to indicate whether an observer will be required on the subject fishing trip.

(c) The Pacific Area Office will advise the vessel owner or operator of any observer requirement within 72 hours (not including weekends or holidays) of receipt of the notice, and if an observer is required, will establish with the owner or operator the terms and conditions of observer coverage, the time and place of embarkation of the observer.

(d) All fishing vessels subject to this part must carry an observer when directed to do so by the Regional Director.

(e) All observers must be provided with sleeping, toilet and eating accommodations at least equal to that provided to a full crew member. A mattress or futon on the floor or a cot is not acceptable in place of a regular bunk. Meal and other galley privileges must be the same for the observer as for other crew members.

(f) Female observers on a vessel with an all-male crew must be accommodated either in a single-person cabin or, if reasonable privacy can be ensured by installing a curtain or other temporary divider, in a two-person cabin shared with a licensed officer of the vessel. If the cabin assigned to a female observer does not have its own toilet and shower facilities that can be provided for the exclusive use of the observer, then a schedule for time-sharing of common facilities must be established and approved by the Regional Director prior to the vessel's departure from port.



## 8.0 REFERENCES

FMP. 1986. Combined Fishery Management Plan, Environmental Assessment and Regulatory Impact Review for the Bottomfish and Seamount Groundfish Fisheries of the Western Pacific Region. Western Pacific Regional Fishery Management Council. Honolulu. Hawaii. 96813.

FMP. 1987. Amendment #1 for the Fishery Management Plan - Bottomfish and Seamount Groundfish Fisheries of the Western Pacific Region. Western Pacific Regional Fishery Management Council. 27p.

FMP. 1988. Amendment 2 to the Fishery Management Plan - Bottomfish and Seamount Groundfish Fisheries of the Western Pacific Region. Western Pacific Regional Fishery Management Council. 55p.

FMP. 1990. Amendment 3 and Environmental Assessment - Fishery Management Plan for the Bottomfish and Seamount Groundfish Fisheries of the Western Pacific Region. Western Pacific Regional Fishery Management Council. 17p.

WPRFMC. 1989 Bottomfish and Seamount Groundfish Fisheries of the Western Pacific Region. 1989 Annual Report. Western Pacific Regional Fishery Management Council.

## 9.0 APPENDICES

## BOTTOMFISH SPECIES INITIALLY INCLUDED IN THE MANAGEMENT UNIT

FAMILY	SPECIES	POPULAR NAMES	DISTRIBUTION <sup>a</sup>	RANGE OF DEPTH USUALLY CAUGHT (fm)	WEIGHT OF INDIVIDUAL FISH USUALLY CAUGHT (lbs.)
Lutjanidae	<i>Aphareus rutilans</i> (silver jaw jobfish)	lehi (H), palu-gutuiliva (S)	G, H, S	90 - 150	6 - 10
	<i>Apogon niger</i> (gray jobfish)	uku (H), asosama (S)	G, H, S	15 - 60	4 - 10
	<i>Etelis carbunculus</i> (squirrelfish snapper)	ehu (H), palu-maleu (S)	G, H, S	110 - 180	1 - 5 (to 45 in American Samoa)
	<i>Etelis coruscans</i> (longtail snapper)	onaga, ula'ula (H), palu-los (S)	G, H, S	100 - 150	4 - 10
	<i>Lutjanus kasmira</i> (blue stripe snapper)	la'ape (H), savane (S), funai (G)	G, H, S	20 - 60	1
	<i>Pristigaster auricilla</i> (yellowtail snapper)	palu-l'usama (S), yellowtail kalekale (G)	G, H, S	100 - 150	1 - 2
	<i>Pristigaster filamentosus</i> (pink snapper)	opakapaka (H), palu-'ena'ena (S) gaseo (G)	G, H, S	30 - 110	2 - 10
	<i>Pristigaster flavipinnus</i> (yelloweye snapper)	palu-alua (S), yelloweye opakapaka (G)	G, H, S	90 - 150	1 - 4
	<i>Pristigaster sieboldii</i> (snapper)	kalekale (H)	G, H	80 - 150	1 - 3
	<i>Pristigaster zonatus</i> (snapper)	gindai, palu-saga (S)	G, H, S	70 - 120	1 - 5

Notes: G = Guam

S = American Samoa

H = Hawaii

<sup>a</sup> Capital letters indicate that species is relatively common in bottomfish catches.  
Lower case indicates that species is uncommon.

<sup>aa</sup> Marketability is reduced because of the risk of ciguatera.

## Bottomfish Species Initially Included in the Management Unit (Page 2)

FAMILY	SPECIES	POPULAR NAMES	DISTRIBUTION*	RANGE OF DEPTH USUALLY CAUGHT (fm)	WEIGHT OF INDIVIDUAL FISH USUALLY CAUGHT (lbs.)
Carangidae (jacks)	<u>Caranx ignobilis</u> (giant trevally)	white ulua (H), tarakito (G), sapo'anae (S)	G, H, S	20 - 65	10 - 40
	<u>Caranx lugubris</u> (black jack)	black ulua (H), tarakito (G) tafauli (S)	G <sup>oo</sup> , H, S	15 - 100	3 - 15
	<u>Pseudocaranx dentex</u> (black-lipped trevally)	pig ulua, butaguchi (H)	H	40 - 100	2 - 40
	<u>Seriola lalandi</u> (amberjack)	kahala (H)	G, H <sup>oo</sup> , S	40 - 130	8 - 30
	<u>Epinephelus fasciatus</u> (blacktip grouper)	fausi (S), gadau (G)	G, S	10 - 90	1 - 2
Serranidae (groupers)	<u>Epinephelus guerinus</u> (sea bass)	hapu'upu'u (H)	H	50 - 150	6 - 22
	<u>Varolus louti</u> (lunartail grouper)	papa (S)	G, S	30 - 90	1 - 5
Lethrinidae (emperorfishes)	<u>Lethrinus amboinensis</u> (samoa emperor)	filoa-gutumu (S)	S	20 - 60	1 - 4
	<u>Lethrinus rubripinnatus</u> (redgill emperor)	filoa-pa'o'osumu (S), safuli (G)	G, S	15 - 100	1 - 2

Notes: G = Guam

S = American Samoa

H = Hawaii

\* Capital letters indicate that species is relatively common in bottomfish catches.  
Lower case indicates that species is uncommon.

oo Marketability is reduced because of the risk of ciguatera.

## SEAMOUNT GROUND FISH SPECIES INCLUDED IN THE MANAGEMENT UNIT

<u>FAMILY</u>	<u>SPECIES</u>	<u>POPULAR NAMES</u>	<u>DISTRIBUTION<sup>a</sup></u>	<u>RANGE OF DEPTH USUALLY CAUGHT (fm)</u>	<u>WEIGHT OF INDIVIDUAL FISH USUALLY CAUGHT (lbs.)</u>
Pentacerotidae (armorheads)	<u>Pseudopentaceros wheeleri</u> (armorhead)	kusakari tsubodai (J)	SE-NHR	125 - 300 +	0.5 - 2.5
Berycidae (alfonsins)	<u>Beryx splendens</u> (alfonsin)	kinmedai (J)	SE-NHR	150 - 300 +	2 - 4 (hook-and-line)
Centrolophidae (raftfishes)	<u>Hyperoglyphe japonica</u> (butterfish)	medai (J)	se-nhr	175 - 200 +	5 - 20 (hook-and-line)

<sup>a</sup> Capital letters indicate that species is relatively common in groundfish catches.  
Lower case indicates that species is uncommon.

Notes: J = Japan

SE-NHR = Southern Emperor -  
Northern Hawaiian Ridge Seamounts

A.2 List of Endangered and Threatened Species in the NWHI Protected Species Study Zone

Hawaiian monk seal (Monachus schauinslandi) - endangered

Green sea turtle (Chelonia mydas) - threatened

Leatherback turtle (Dermochelys coriacea) - endangered

Olive ridley turtle (Lepidochelys olivacea) - threatened

Sperm whale (Physeter macrocephalus) - endangered

Humpback whale (Megaptera novaeangliae) - endangered

## NATIONAL MARINE FISHERIES SERVICE

## FISHING-ENDANGERED AND PROTECTED SPECIES INTERACTION SUMMARY LOG

Vessel \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_ Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Permit No. \_\_\_\_\_ Start of Haul \_\_\_\_\_

End of Haul \_\_\_\_\_

SPECIES	SIGHTED IN AREA OF GEAR				RELEASED or DROPPED OFF			
	Workspace	Total	Workspace	Total	Workspace	Total	Workspace	Total
Monk seal								
False killer whale								
Green sea turtle								
Hawksbill turtle								
Blackfoot albatross								
Laysan albatross								
Booby								
Others (specify)								

#### **A.4 Status and Mortality Factors of the Endangered Hawaiian Monk Seal - Prepared by Justin Rutka, Council Staff**

##### **A.4.1 Distribution and Status of the Endangered Hawaiian Monk Seal**

Hawaiian monk seals are found in the NWHI. They are also seen infrequently in the water and on beaches in the main Hawaiian islands, and less frequently still at Johnston Island. Pupping occurs regularly on the islands and islets at French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef, and Kure Atoll. Pupping has been intermittent during the last decade at Midway Island, and pups have been recorded from Necker and Nihoa Islands only since 1983. Nihoa and Necker Islands are probably not significant pupping sites because of the limited beach areas and rough lava beaches there which can be awash at high tide or during storm conditions. One pup was born on Kauai in 1988.

Adult females with pups prefer beaches with shallow protected waters where their pups learn to swim and feed in relative safety from sharks and strong wave and surge conditions. Nearshore protected waters provide areas which are critical for successful rearing and acclimation of pups to the ocean environment.

Adult male monk seals do not form harems like some other seals, but instead patrol sections of beaches from the water searching for receptive females. Mating has only been observed in nearshore waters. Breeding aggregations located on separate islands and atolls in the NWHI are probably fairly discreet.

When at the breeding islands, monk seals feed on reef fish, octopus, lobster, and eels. Studies have shown that adult male monk seals can dive down to at least 400 feet to feed. Monk seals spend prolonged periods at sea away from their home islands. While tagging studies have shown that monk seals swim from island to island in the NWHI, at least three seals have been sighted at Johnston Island (500 miles south of the NWHI) over the past 30 years. They apparently have low migration rates between islands and a high fidelity to the islands of their birth. The causes for going to sea are not well known. The destinations, routes, and food sources available to monk seals while at sea are also unknown.

There have been observations of monk seals at most of the NWHI from the 19th century. Although some early counts of animals are available for some of the NWHI, the first chain-wide census was not done until 1957-58. Counts of seals on all NWHI atolls in 1982 were about 50 percent lower than the beach counts made in 1957-58. Both counts were only of hauled out seals and did not include seals that were at sea, nor were the counts corrected for seasonality. It is possible to evaluate total monk seal population changes in earlier years from beach counts made in the 1950's and 1960's since the proportion of hauled out seals (relative to the total population) was



unknown. The portion of hauled out seals varies seasonally and among atolls. Therefore, direct comparisons of beach counts made during different times of the year could lead to invalid conclusions. The population of Hawaiian monk seals has declined since the beach count surveys were initiated in 1957. Sufficient data has been collected since 1983 for the extrapolation of beach count data to population size and composition as a whole. There were an estimated 1,488 monk seals in the NWHI in 1983, and 1,718 in 1987, an encouraging increase of 230 animals. The 1987 monk seal population included 202 pups of the year.

#### A.4.2 Mortality Factors

Groups of adult male monk seals sometimes attack single adult females during attempts to mate. Female seals are usually severely injured during such encounters, and such episodes contribute to the mortality rate of adult females. At some locations such as Kure Atoll, Laysan Island, and Lisianski Island, adult male seals attack weaned pups often ending in the death of the pups. Both these aberrant behaviors of adult male monk seals may be having a significant effect on recruitment and recovery of the population.

Shark predation is also a likely major factor in the natural mortality of monk seals, particularly among younger animals and those of all ages that are sick or injured. Monk seals have also been found entangled in discarded fishing line, trawl webbing, gillnet fragments, and other kinds of marine debris. Weaned pups and yearlings are particularly vulnerable to entanglement with marine debris because they spend a disproportionate amount of time in nearshore areas to feed, the same areas which tend to concentrate debris and webbing materials.

Although seals are easy to approach on land, repeated disturbances even low level ones, apparently can have grave results such as premature weaning of pups, heat stress, and abandonment of preferred pupping and haul out areas. Sustained human activity on beaches used by monk seals apparently cause the seals to desert these beaches.

Most of the NWHI have been occupied by people at one time or another for varying periods. Necker and Nihoa Islands, for example, show much evidence of sustained prehistoric occupation by the early Polynesians. Shipwrecked crews have spent varying lengths of time at French Frigate Shoals, Laysan, Lisianski, Pearl and Hermes Reef, Midway, and Kure Atoll. During the 18th, 19th, and early 20th century, sealers, feather poachers, guano diggers, and egg gatherers must have greatly reduced the monk seal population by taking them for food, shark bait, hides, and oil, and caused the seals to abandon ancestral beaches and nearshore waters.

In a more modern-day context, Hawaii monk seal populations have demonstrated a high degree of sensitivity to human disturbances at Midway, Tern Island (French Frigate Shoals), and Kure Atoll. Midway Island has been under the jurisdiction of the U.S. Navy since 1903. It figured prominently in World War II and was shelled and bombed by the Japanese forces. During the 1960's, there were as many as 3,000 naval personnel and their dependents on Midway Island. There are around 300 people on Midway now. The first permanent occupation of French Frigate Shoals occurred in 1942 when the Navy constructed an air strip on Tern Island for use in WWII. The U.S. Coast Guard took over the island following the war and began operating a Loran A station there in 1944. The loran station was closed in 1979, and the U.S. Fish and Wildlife Service now maintains a few personnel on Tern Island. The island was also used for fishery support activities right after WWII. Long term occupation of Kure Atoll began in 1960 with the establishment of a Coast Guard Loran C station which is still operational today. Military bases and loran stations have contributed a major part of the reduction of the habitat and numbers of Hawaiian monk seals. There are now no commercial uses of monk seals and human disturbances of seals on the NWHI are kept to a minimum. The species is showing indications of recovery since its listing in 1976.

There are no confirmed cases of monk seals being killed or injured in conjunction with bottomfishing or longline operations. Longliners began targeting swordfish near the NWHI in the spring of 1990 and indirect evidence of possible interactions has emerged (see FMP Amendment 4 Section 4.1). While there are unconfirmed reports of monk seals interacting with the longline fishery for swordfish in the NWHI, the frequency and severity of interactions is not documented.

Monk seal interactions with the bottomfish fishery can also occur in the NWHI. Monk seals have also been observed removing catch from bottomfish gear in the NWHI. They are often attracted to the vessels as the catch is being retrieved. In 1982, a monk seal was photographed at French Frigate Shoals with a bottomfish hook in its mouth.

The sex ratio of Hawaiian monk seals at birth is 1:1. However, there is considerable variation in the ratio of males to females in adult and juvenile age classes at some islands. For example, 1987 census counts shows that there were many more adult male monk seals on Lisianski Island than adult female seals. Necker, Laysan, and Kure Islands also had more adult male seals in 1987 (beach counts) than adult female seals, while the sex ratio at Pearl and Hermes Reef was evenly split between males and females. The original causes of the skewed ratios are not fully understood.

#### A.4.3 Conclusions

Through 1987, the monk seal population has shown some improvement since 1983. The population is, however, probably lower than it was in 1957-58 when the first NWHI-wide census was made. Some populations are at risk from skewed sex ratios and male aggression (Laysan and Lisianski), while others may be responding to recovery actions (Kure), and others may be at carrying capacity (French Frigate Shoals, Necker, Nihoa). French Frigate Shoals is estimated to accommodate about a half of the breeding population of Hawaiian monk seals. The sandy islets at French Frigate Shoals are particularly important habitat for seal pupping and weaning.